



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/089,211A

Source: IFW/6

Date Processed by STIC: 9/17/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: <u>10/089,211A</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <u> </u> Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <u>J</u> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <u> </u> Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <u> </u> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <u> </u> Variable Length	Sequence(s) <u> </u> contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <u> </u> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) <u> </u> . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <u> </u> Skipped Sequences (OLD RULES)	Sequence(s) <u> </u> missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <u> </u> Skipped Sequences (NEW RULES)	Sequence(s) <u> </u> missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <u>J</u> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <u>J</u> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <u> </u> Use of <220>	Sequence(s) <u> </u> missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <u> </u> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <u> </u> Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



IFW16

RAW SEQUENCE LISTING

DATE: 09/17/2004

PATENT APPLICATION: US/10/089,211A

TIME: 10:04:37

Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

3 <110> APPLICANT: University of Victoria Innovation and Development Corporation
 4 Hintz, William E.
 5 Eades, Caleb Joshua
 7 <120> TITLE OF INVENTION: Mannosidases and Methods for using the Same
 9 <130> FILE REFERENCE: 2847-62447-01
 11 <140> CURRENT APPLICATION NUMBER: 10/089,211A
 12 <141> CURRENT FILING DATE: 2002-03-25
 14 <150> PRIOR APPLICATION NUMBER: PCT/US00/27210
 15 <151> PRIOR FILING DATE: 2000-10-02
 17 <150> PRIOR APPLICATION NUMBER: 60/157,341
 18 <151> PRIOR FILING DATE: 1999-10-01
 20 <160> NUMBER OF SEQ ID NOS: 19
 22 <170> SOFTWARE: PatentIn version 3.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 3328
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Aspergillus nidulans
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 34 ctgggcttgg tatgagattg cgagcatcta tgcgggtgta ccttctgaat gacaatgaat 180
 36 gtattttact tctcgaaaag aacccttggg cactgaattg tgcggagaat gatgccctga 240
 38 ttatgatata actagtcgcg tccgtcaagc cacaagggtc tgggcagtcg gctataaatc 300
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 44 agaacttcag cctctgcgat cctgtcctta ccgcaactcg ttaacctgcg cgacctcgcg 480
 46 cgaccacagc cttaggtttc gagatgccat gaaaatcaga aattgaacct cctttccatt 540
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 60 ggcagtgggg ctccctccgc tgcgttggtg gagccagaag aataccaacg accaccactt 960
 62 taacacagatt cagatgacag cccaactccg tcaaaagaac gcctggacac cccgagcaat 1020
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 66 aataaacatg aagatgatga ggatattgtc ccaatttctc actggaagcc gatgcccga 1140
 68 cggcatccag tcagtccgga ggctttgatc aagctgcca cggggcaatc aaaggaactc 1200
 70 ccccaactgc aagctaagtt caaggacgag tcgtcctcgg acaagatgca gcggctgcaa 1260
 72 caacttgaca ctatcaagtc ggctttctta catgcgtgga acggtttaca gatctctgcc 1320
 74 atgggtcatg atgaggttag acctctgcgc ggtggtttca aggacacatt caatggctgg 1380
 76 ggcgcgacct ttgtcgacgc cttggatacc ctgtggatca tggatctcaa agaggagttc 1440
 78 tccatggcag tcgactacgt caagaaaatc gattttacca ccagaccaa gaaagagatt 1500

Does Not Comply
Corrected Diskette Needed

2,6-9

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TIME: 10:04:37

Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

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84 gccttcgaca caccgaaccg gatgccaaac ctctattata aatggagccc agagtatgct 1680
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92 aacctggacg catccgggtg caggcgagtt cccggcgtct cgcgagagcc tgctgcggct 1920
94 gggcagccag tcagatggtc ctctgacgag atcaactcga cgagctcggg atcgtatcgt 1980
96 acaagacaaa ttcattgagg cgagagcct gtccgtcatg acaatgattc gtttgaaacg 2040
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100 ctcaacgatc agctctcagg cattgacaag ttccgactcg gagcccttgg tgactctacg 2160
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120 aaaacacaga aatcaaccac tactgagggt cgacacaccg gtacaactac cggggcaggc 2760
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124 atgacaggga tctcggctcg gcagtacctc cttcgcccgg aggcgacgca gtctgtcttc 2880
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128 gctgtcgaca aagccacgaa gacggagctg gcgaactcgg ccatttccga cgtaaccgtc 3000
130 gataatccac gcccggtgga cagtatggaa tcattctggc ttgcggagac tctgaaatac 3060
132 ttctaccttc ttttcagcga tccaagcctg gtgagccttg acgaatatgt cttgtaagtg 3120
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136 cgttcaagcg acccaagtac tgaagtacta atttaaatga tcttttagcc tgtatctata 3240
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146 <213> ORGANISM: Aspergillus nidulans
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149 <221> NAME/KEY: variation
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151 <223> OTHER INFORMATION: R = A, C, G, or T
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157 atattccact ttagccgtct cgcagttacg atcagcctgc aatcttggtt acctccggc 120
159 cccgtcgatc accataatcc cctttcccc gaccagaacc tcaaagatcc atacgaaaac 180
161 gacaatagtg cgaccggcag tggggctcct ccgctgcgt tggtagagcc agaagaatac 240
163 caacgaccac cactttacac agattcagat gacagcccaa ctccgtcaaa agaacgctg 300
165 gacacccga gcaatgtccc atctcaggag cctgaatttg atgccgccag acttcagacg 360
167 ggtgcgcaga cccaaaataa acatgaagat gatgaggata ttgtcccaat ttctcactgg 420
169 aagccgatgc ccgaacggca tccagtcagt ccggaggctt tgatcaagct gccaacggg 480
171 caatcaaagg aactccccca actgcaagct aagttcaagg acgagtcgtc ctcgacaag 540

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Per Sequence Rules, "r" can only represent "a" or "g." Use "n" to represent a, c, g, or t.

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Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

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179 ctcaaagagg agttctccat ggcagtcgac tacgtcaaga aaatcgattt taccaccagc      780
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183 gcctatgata ttctggggaca caaatacgat atacttttgg aaaagtctgt tgagcttgcg      900
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191 gatgcaattg cacgaatcac aaatgagctc gaaaagtatc aggatttgac aaagcttccc     1140
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217 gaggacgcat actacatggc catggatcct tatgccgaca agcggccaat atcacataac     1920
219 aaacgctccg ccggccctga aaaggggaat tggcacgtcg tcgccacagc cgaatcgtct     1980
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225 cgactcccgc cgggcatgac agggatctcg gctcggcagt acctccttcg cccggaggcg     2160
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233 gagactctga aatacttcta ctttcttttc agcgatccaa gcctgggtgag ccttgaggaa     2400
235 tatgtcttga acaccgaggc tcattcgttc aagcgaccca ggtactga      2448
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239 <211> LENGTH: 815
240 <212> TYPE: PRT
241 <213> ORGANISM: Aspergillus nidulans
243 <400> SEQUENCE: 3
245 Met Phe Arg Ala Arg Arg Ser Arg Ile Ser Leu Val Phe Ala Val Ile
246 1 5 10 15
249 Phe Val Leu Leu Ile Phe His Phe Ser Arg Leu Ala Val Thr Ile Ser
250 20 25 30
253 Leu Gln Ser Trp Val Pro Pro Pro Val Asp His His Asn Pro Pro
254 35 40 45
257 Phe Pro Asp Gln Asn Leu Lys Asp Pro Thr Glu Asn Asp Asn Ser Ala
258 50 55 60
261 Thr Gly Ser Gly Ala Pro Pro Pro Ala Leu Val Glu Pro Glu Glu Thr
262 65 70 75 80
265 Gln Arg Pro Pro Leu Thr Thr Asp Ser Asp Asp Ser Pro Thr Pro Ser
266 85 90 95

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Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

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277 Glu Asp Asp Glu Asp Ile Val Pro Ile Ser His Trp Lys Pro Met Pro
278           130           135           140
281 Glu Arg His Pro Val Ser Pro Glu Ala Leu Ile Lys Leu Pro Thr Gly
282 145           150           155           160
285 Gln Ser Lys Glu Leu Pro Gln Leu Gln Ala Lys Phe Lys Asp Glu Ser
286           165           170           175
289 Ser Ser Asp Lys Met Gln Arg Leu Gln Gln Leu Asp Thr Ile Lys Ser
290           180           185           190
293 Ala Phe Leu His Ala Trp Asn Gly Thr Lys Ile Ser Ala Met Gly His
294           195           200           205
297 Asp Glu Val Arg Pro Leu Arg Gly Gly Phe Lys Asp Thr Phe Asn Gly
298           210           215           220
301 Trp Gly Ala Thr Leu Val Asp Ala Leu Asp Thr Leu Trp Ile Met Asp
302 225           230           235           240
305 Leu Lys Glu Glu Phe Ser Met Ala Val Asp Thr Val Lys Lys Ile Asp
306           245           250           255
309 Phe Thr Thr Ser Thr Lys Lys Glu Ile Pro Val Phe Glu Thr Thr Ile
310           260           265           270
313 Arg Thr Leu Gly Gly Met Leu Gly Ala Thr Asp Ile Ser Gly His Lys
314           275           280           285
317 Thr Asp Ile Leu Leu Glu Lys Ser Val Glu Leu Ala Asp Val Leu Met
318           290           295           300
321 Asp Ala Phe Asp Thr Pro Asn Arg Met Pro Thr Leu Thr Thr Lys Trp
322 305           310           315           320
325 Ser Pro Glu Thr Ala Ser Glu Phe Arg Arg Gly Asp Phe Lys Ala Val
326           325           330           335
329 Leu Ala Glu Leu Gly Ser Leu Ser Leu Glu Phe Thr Arg Leu Ala Gln
330           340           345           350
333 Leu Thr Lys Gln Asp Lys Thr Thr Asp Ala Ile Ala Arg Ile Thr Asn
334           355           360           365
337 Glu Leu Glu Lys Thr Gln Asp Leu Thr Lys Leu Pro Gly Leu Trp Pro
338           370           375           380
341 Leu Asn Leu Asp Ala Ser Gly Cys Arg Arg Val Pro Gly Val Ser Arg
342 385           390           395           400
345 Glu Pro Ala Ala Ala Gly Gln Pro Val Arg Trp Ser Ser Asp Glu Ile
346           405           410           415
349 Asn Ser Thr Ser Ser Val Ser Thr Arg Thr Arg Gln Ile His Glu Gly
350           420           425           430
353 Gly Glu Pro Val Arg His Asp Asn Asp Ser Phe Glu Thr Gly Phe Pro
354           435           440           445
357 Val Ser Val Asp Thr Arg Thr Pro Pro Pro Lys Gln Asp Cys Thr Gly
358           450           455           460
361 Gly Leu Asn Asp Gln Leu Ser Gly Ile Asp Lys Phe Gly Leu Gly Ala
362 465           470           475           480
365 Leu Gly Asp Ser Thr Thr Glu Thr Leu Pro Lys Glu Thr Met Leu Leu

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Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

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369 Gly Gly Asn Asn Asp Gln Thr Leu Asn Met Thr Gln Lys Ala Met Asp
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373 Thr Val Arg Glu Thr Leu Val Thr Gln Pro Met Leu Lys Asn Asn Arg
374          515          520          525
377 Asp Val Arg Phe Leu Ala Thr Val Ser Met Thr Lys Ser Leu Asp Ala
378          530          535          540
381 Asn Pro Pro Gly Arg Thr Thr Phe Ala Thr Glu Gly Thr His Leu Thr
382 545          550          555          560
385 Cys Phe Ala Gly Gly Met Leu Ala Ile Gly Ala Lys Leu Phe Gly Leu
386          565          570          575
389 Asp Lys Asp Leu Lys Leu Gly Ser Gln Leu Thr Asp Gly Cys Val Trp
390          580          585          590
393 Ala Thr Glu Ala Thr Lys Ser Gly Ile Met Pro Glu Ala Phe Gln Leu
394          595          600          605
397 Val Pro Cys Lys Lys Gly Glu Pro Cys Glu Trp Asp Glu Asp Ala Thr
398          610          615          620
401 Thr Met Ala Met Asp Pro Thr Ala Asp Lys Arg Pro Ile Ser His Asn
402 625          630          635          640
405 Lys Arg Ser Ala Gly Pro Glu Lys Gly Asn Trp His Val Val Ala Thr
406          645          650          655
409 Ala Glu Ser Ser Ser Pro Gln Glu Asp Lys Thr Gln Lys Ser Thr Thr
410          660          665          670
413 Thr Glu Gly Arg His Thr Gly Thr Thr Thr Gly Ala Gly Ala Leu Ser
414          675          680          685
417 His Glu Glu Phe Val Thr Gly Lys Ile Leu Asn Asp Arg Leu Pro Pro
418          690          695          700
421 Gly Met Thr Gly Ile Ser Ala Arg Gln Thr Leu Leu Arg Pro Glu Ala
422 705          710          715          720
425 Ile Glu Ser Val Phe Ile Met Phe Arg Leu Thr Gly Asp Pro Ser Trp
426          725          730          735
429 Arg Glu Lys Gly Trp Lys Met Phe Gln Ala Val Asp Lys Ala Thr Lys
430          740          745          750
433 Thr Glu Leu Ala Asn Ser Ala Ile Ser Asp Val Thr Val Asp Asn Pro
434          755          760          765
437 Arg Pro Val Asp Ser Met Glu Ser Phe Trp Leu Ala Glu Thr Leu Lys
438          770          775          780
441 Thr Phe Thr Leu Leu Phe Ser Asp Pro Ser Leu Val Ser Leu Glu Glu
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450 <211> LENGTH: 2177
451 <212> TYPE: DNA
452 <213> ORGANISM: Aspergillus nidulans
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10/089,211A

6

<210> SEQ ID NO: 15

<211> LENGTH: 29

<212> TYPE: DNA

<213> ORGANISM: PCR Primer

<220> FEATURE:

<221> NAME/KEY: y represents c, t, or u; r represents g or a; n represents a, c, g, t, or u; and h represents a, c, t, or u

<222> LOCATION: (1)..(29)

<223> OTHER INFORMATION: ☒ Explanations go on <2237> line, not <2217> line. See

<400> SEQUENCE: 15

gggggcyctng gygartcntt ctacgagta

29 1.823

same error in sequence 16

Sequence Rules.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/089,211A

DATE: 09/17/2004
TIME: 10:04:38

Input Set : A:\62447.txt
Output Set: N:\CRF4\09172004\J089211A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; N Pos. 1632
Seq#:8; N Pos. 4
Seq#:15; N Pos. 9,18
Seq#:16; N Pos. 4,13,16,22,25

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:15; Line(s) 812
Seq#:16; Line(s) 827

IMPORTANT (see item 2 on Error Summary sheet)

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/089,211A

DATE: 09/17/2004

TIME: 10:04:38

Input Set : A:\62447.txt

Output Set: N:\CRF4\09172004\J089211A.raw

L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1620
L:745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:812 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:15
L:817 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:15,Line#:814
L:818 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:827 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:16
L:832 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:16,Line#:829
L:833 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0